**What is SQL?**

* SQL stands for **Structured Query Language**.
* It is designed for managing data in a relational database management system (RDBMS).
* SQL is a database language, basically it is used to perform **CRUD** (create, read, update, delete) operations on database, etc.
* SQL is **Standard database language** for all DBMS such as MySQL, Oracle, and PostgreSQL.

**Why SQL is required**

* To create new databases, tables and views
* To insert new record in a database
* To update existing record in database
* To delete records from a database
* To retrieve data from a database

**SQL Commands**

* Select: - It extracts data from database.
* Update: - Update existing data in a database.
* Delete: - Deletes data from database.
* Create Table: - Create new table
* Alter Table: - Used to modify existing table
* Drop Table: - Deletes a table
* Create Database: - It creates a new database.
* Alter Database: - Modify existing database.
* Insert Into: - Insert new data into database.
* Create Index: - It is used to create an index (search key)
* Drop Index: - It deletes an index.

**CREATE**: -

*CREATE DATABASE database\_name;*

**DROP COMMAND**: - Used to delete or remove existing database.

*DROP DATABASE database\_name ;*

**RENAME COMMAND**: - Used to delete or remove existing database.

*RENAME DATABASE old\_database\_name* **TO** *new\_database\_name;*

**DROP COMMAND**: - Used to delete or remove existing database.

*DROP DATABASE database\_name ;*

**TABLES**: -

Used to create table in a database.

Syntax to create table: -

*CREATE TABLE "tablename"*

*("column1" "data type",*

*"column2" "data type",*

*"column3" "data type",*

*...*

*"columnN" "data type");*

Example: -

*CREATE TABLE STUDENTS (*

*ID INT NOT NULL,*

*NAME VARCHAR (20) NOT NULL,*

*AGE INT NOT NULL,*

*ADDRESS CHAR (25),*

*PRIMARY KEY (ID)*

*);*

**DROP TABLE: -** Used to remove table from database.

* Syntax:- *DROP TABLE TABLE\_NAME;*

**DELETE: -** Delete statement is used to delete rows from a table. To select specific row which we want to delete we need to use WHERE condition. If WHERE clause is not specified then it will delete all the rows.

* Syntax:- *DELETE FROM TABLE\_NAME;*

**DIFFERENCE BETWEEN DELETE, DROP AND TRUNCATE.**